SYSTEM AND METHOD FOR JITTER COMPENSATION IN DATA TRANSFERS

ABSTRACT OF THE INVENTION

5   A system and method for compensating for differences
between a recovered receive clock and an internal transmit
clock in an elastic buffer and thereby preventing corruption
of data. In one embodiment, the system comprises a circularly
accessed buffer coupled to read and write logic. The read and
10   write logic read and write to locations within the circular
buffer as indicated by respective read and write pointers.
The system further comprises control logic which compares the
pointers to determine whether the buffer is approaching an
underflow or overflow condition and adds or deletes fill words
15   between frames of data to compensate for the underflow or
overflow condition. In one embodiment, the system includes
fill word logic which is configured to add a fill word bit to
each received word and to set or clear the fill word bit to
indicate whether or not the corresponding word is a fill word.